Feb. 18, 1930. A. C. JACKSON 1,747,635

LIGHT FILTER FOR HEADLIGHTS

Filed Oct. 27, 1927

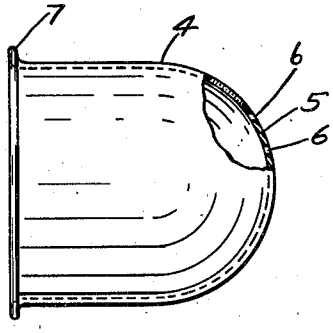

FIG. 1

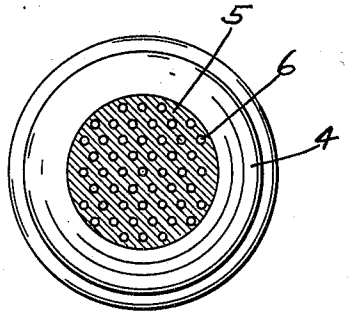

FIG. 2

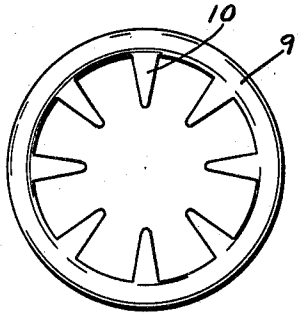

FIG. 3

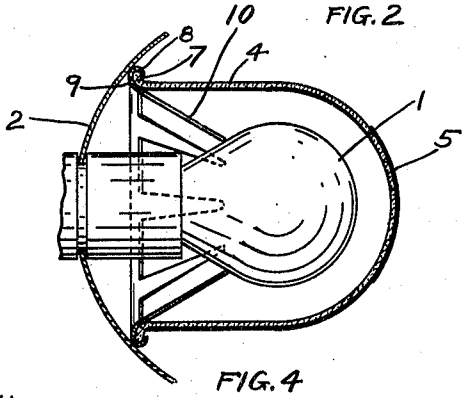

FIG. 4

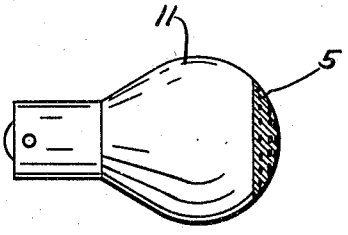

FIG. 5

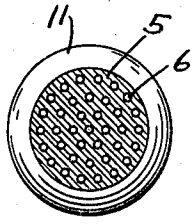

FIG. 6

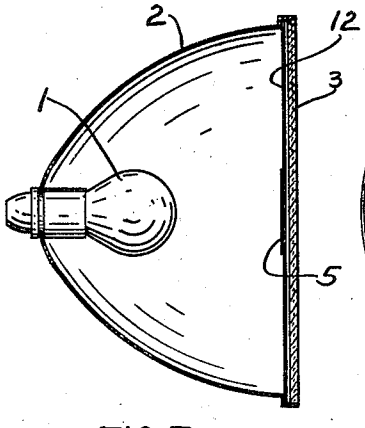

FIG. 7

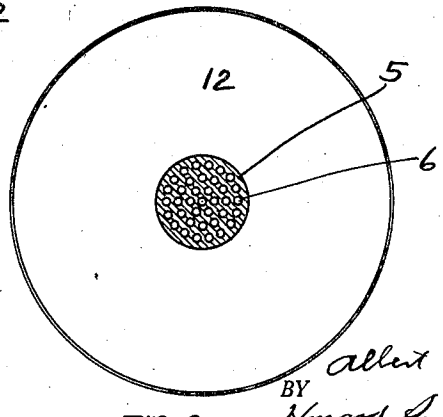

FIG. 8

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UNITED STATES PATENT OFFICE

ALBERT C. JACKSON, OF DAYTON, OHIO

LIGHT FILTER FOR HEADLIGHTS

Application filed October 27, 1927. Serial No. 229,053.

This invention relates to means for filtering the direct rays of light emitted by automobile and like lamps to make them non-glaring.

It is one of the principal objects of my invention to provide means that can be cheaply manufactured and easily applied to a vehicle lamp for filtering out the glare of its rays.

It is another object of my invention to provide, as one embodiment thereof, a light-filtering device which may be easily slipped on or pulled off of an incandescent lamp bulb without removing the latter from the reflector casing.

My invention makes unnecessary a low candle power or a dimmed bulb itself, since it prevents all glare and produces a uniform light all over the reflector, thus increasing the amount of light emitted, without dark spots or bands.

It is another object of my invention to provide a device which will project the rays of light without glare, far in advance of the automobile through the clear holes in the glass, since only a small amount of light passes through them. With these holes or light-emitting spaces, the surrounding color filter co-operates to pervent all glare directly in front of the headlight, and since the frosted parts of the cap applied to the bulb filter the side rays emitted by the latter, there is no glare from any angle.

Other important and incidental objects of my invention will be brought out in the following specification and particularly set forth in the subjoined claims.

In the accompanying drawings illustrating my invention, Figure 1 is a side elevatonal view, partly in section, of my light-filterng dome-shaped hood. Figure 2 is a front view of the same. Figure 3 is a rear view of the light-filter support. Figure 4 is a longitudinal sectional view taken through the bulb and the light-filter applied thereto. Figure 5 is a side view of an incandescent lamp bulb having on its outer portion my apertured light-filtering film. Figure 6 is a front view of said bulb. Figure 7 is a longitudinal, sectonal view taken through a headlight, showing immediately behind the lens a transparent disc having my light-filtering film on its middle portion. And Figure 8 is a front view of said disc.

Referring to the accompanying drawings for a detailed description of the forms of embodiment of my invention illustrated therein, the numeral 1 in Figures 4 and 7 designates a conventional, incandescent lamp bulb. This bulb is secured in the usual manner within a headlight casing 2 behind a lens 3. In order to eliminate the glare of the rays of light emitted by the headlight just described, or any other of a similar nature, I provide for easy application to the bulb 1 the light-filtering device now to be described. While this device may take different forms, the one which I prefer for attachment to the bulb 1 is a dome-shaped body or hood 4 which is made of transparent material such as glass.

Upon the outer portion of the glass dome 4, I apply with a brush or by any other suitable means, a film 5 of green paint or other thin, colored, light-penetrating material. Formed in the outer portion of the glass 4 and in this colored film 5 are direct light-ray emitting holes 6. However, these holes may be formed only in the colored film 5, as shown in Figure 4. In both instances they co-operate with the colored film in filtering the direct rays of light emitted by the bulb 1. The film 5 permits only a portion of the light to pass through unobstructed, thus eliminating its glare.

That portion of the dome or hole 4 not covered by the light-filtering film 5 is frosted to filter the light to the reflector, thus eliminating the glare of the lateral rays emitted by the bulb 1.

For the purpose of easily applying the light-filtering dome 4 to the bulb 1 without the necessity of removing it or of employing screws or other fastening elements for this purpose, I provide the following means. The inner end of the glass dome 4 terminates in an outwardly projecting annular flange or bead 7. Adapted to be fitted over this bead is the bent-over portion 8 of an end rim member 9 which is preferably a metal stamping

from which fingers or lugs 10 project inwardly, as shown in Figures 3 and 4. By bearing against the inner end of the dome 4, these fingers not only assist in firmly securing the rim member 9 to the dome, but act as gripping elements for engagement with the light bulb 1 to hold said dome firmly thereon. The light-filtering dome 4 is slipped over the bulb 1 to rest against the rear part of the reflector casing, the fingers 10 yielding sufficiently to enable them to slide over the widest part of the bulb and then grip it firmly at the rear, as shown in Figure 4. Therefore, no springs, screws or other loose fastening elements need be employed for securing the dome to the bulb, nor need the latter be removed from the headlight for this purpose. After the light-filtering dome or hood 4 is in place on the bulb 1 in the headlight 2, the spring tension fingers or wings 10 will hold it snugly against the back of the reflector to prevent it from coming off or rattling. When it is desired to remove the dome from the headlight to replace a light bulb, the fingers 10 will spring open when the dome is pulled forwardly, thus enabling it to be removed as easily as it is put on.

In Figures 5 and 6, I have shown an incandescent lamp bulb 11 whose front end is coated with my apertured light-filtering film 5, with its remaining part frosted, for the purpose of filtering the direct rays of light before they leave the bulb. In this modification, it is not necessary to employ the light-filtering dome or hood 4.

Figures 7 and 8 illustrate another modification of my invention in the provision of a disc 12 upon whose middle portion my light-filtering film 5 is placed. The remaining portion of the disc is frosted, the frosted portion co-operating with the filmed part 5 to filter the direct rays of light that pass through. This disc is secured in the reflector casing 2 of Figure 7 immediately behind the clear glass lens 3 to filter the direct rays of light emitted by the bulb 1.

It is thus seen that in all forms of embodiment of my invention the drect rays of the head light are so filtered as to eliminate their glare. The various forms of my light-filtering device may be economically made and easily applied to any head light now in use, without changing the latter in any respect.

I do not wish to be limited to the details of construction and arrangement herein shown and described, and any changes or modifications may be made therein within the scope of the subjoined claim.

Having described my invention, I claim:

A light-filtering means for headlight bulbs, comprising a dome-shaped body adapted to be slipped over said bulb, and a color film with light emitting holes, on the outer middle portion of said body, that portion of the latter between its inner end and said film being frosted.

In testimony whereof I have hereunto set my hand this 24th day of October, 1927.

ALBERT C. JACKSON.